

TUTORIAL N°6

Control and Automation Systems for Electricity Distribution Networks (EDN) of the future

Background and aim of the tutorial

The objective of the tutorial is to present the results from the CIGRE/CIRED C6.25/B5 Joint Working Group (JWG) that has worked on the control and automation systems for the future electric networks with particular reference to the TSO/DSO interface. The main focus is on the evaluation of the level of automation and control necessary to better manage distribution networks with large penetrations of Distributed Energy Resources (DERs), as seen from both the TSO and DSO perspectives, and to provide services and information about the two level of management (i.e., at TSO and DSO level).

Contents

More particularly, the tutorial will involve speakers both from the academic and industrial sectors. The structure will be the following:

1. Introduction and definition of Control and Automation Systems for EDN of the future: boundaries, constrains, possible architectures etc.
2. Presentation of the result of the survey on the current state of the art and expected requirements for the Control and Automation of EDN
3. Needs for interfacing EDN control and automation systems with control and automation systems of the transmission network
4. List of control and automation functions relevant for the EDN operation in the new scenario
5. Control and automation functions at the TSO and DSO interfaces
6. Advanced distribution automation and emerging TSO/DSO functionalities
7. The regulation and network code for TSO/DSO interactions

Expected benefits

At the end of the tutorial, participants will have a better knowledge of the level of automation in distribution network and the new requirement for the future networks. Supported by the return of experience of the tutorial, they will have a clearer view on what can be the added value of automation in distribution networks, and will be able to identify new potential applications in their respective areas of study.

Who should attend

Every person interested by the field of control and automation of distribution network, DSOs and aggregators.

Support material

A copy of all the presentation material used in the tutorial will be supplied to delegates (electronic version).

About the presenter(s)

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